

REQUEST FOR CONTINUED EXAMINATION

Application /Control Number: 10/593,889

Art Unit: 2837

Examiner: Andrew Millikin



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This is response to the OFFICE ACTION dated 04/14/2010.

Package other than forms includes:

- (1) This letter of response (4 page)
- (2) Amended Claims with mark up (4 pages)
- (3) Amended Claims without mark up (4 pages)

SUMMARY: AMENDMENT IN CLAIMS

Claim 1–4 are currently amended. Claim 13–16 are newly added. Other claims have not been amended.

EXPLANATION OF CONTENTS OF CLAIM 1

At first, to respond office action item 4, and to provide clear understanding of components of claim 1, some concrete sample especially against “means” in the claim are shown here with relating portion of specification.

First means:

I think these wording describing the first means are understandable. But, to get clearer understanding, sample of data are shown here. These numbers show beat duration times expressed with unit of millisecond. Now, unit is not limited to millisecond.

750,692,645,609,584,570,562,567,561,560,.....

These data followed by more data. Total number of data is equal to total beat number in a music work or its certain portion. The data in memory is thus a series of numeric data. This is corresponding to specification paragraph [0013].

Second means:

Corresponding basic idea is written at the second and third sentences in paragraph [0013] in specification:

These data are sequentially read out from said memory, and are set as duration length to the next beat. Every time the time length is passed, beat is ticked and is advanced.

The verb "measure" has caused problem. This verb seems usually to mean an action to get numeric data corresponding to certain physical amount. Applicant thought it had another meaning of action to cutting off physical object, such as length of string, weight of sugar, or length of time, corresponding to certain numeric data. This is because in other language a verb corresponding to "measure" had both meaning. An idiom "measure off" may be use for latter meaning, but applicant is not confident to use this idiom.

Instead of a verb, a noun "timer" is used in amended claim 1. "Timer" is written in the third sentence of paragraph [0045].

The system sets the each duration data to timer, measures the length, and ticks the beat.

A timer can transform numeric data into time length. With one design of realization of timer, by setting the numeric data as initial count, and countdown one by one by clock signal, which is generated repeatedly every unit time periods: for example one clock per millisecond. And, at the timing when the count is going to become zero, the timer generates an output signal, telling specified time length has passed.

EXPLANATION OF CONTENTS OF CLAIM 4

Fig. 4 shows program flow when the invention is realized by a microcomputer and computer program, and paragraph [0053] is description of this flow. As written in second sentence, "In the figure, circle 100 shows starting point of process of timer interruption, which occurs every one millisecond". In other word, program starts periodically from circle 100 every milliseconds. Then, in box 102, count up variable "t", which represents time having lapsed from head of current beat. And by checking "t" reaches duration data "T" (also in BOX 102), program detects that time specified by duration data has lapsed, and "t" is reset to zero (in Box 105) and "T" is set to next duration time data (in Box 104).

This programming method is used in real time process control system. And timer function stated in claim 1 is realized by microprocessor with these computer program.

Timer in above paragraph is differently work with timer in claim 1, and is set fixed time length of 1 millisecond.

Now, problem has been in "second program" including a verb "measure". This expression is replaced by

"detecting time elapsed from beginning of each beat reaches said each duration time"
in amended claim 4.

RESPONSE TO CLAIM REJECTION – 35 USC § 112

ITEM No. 2, Claim 1-7 & 11:

Words "numeric" and "transform" are eliminated, and referring paragraphs in specification corresponding replaced terms are shown above explanation.

ITEM No. 4.

Claims 1 and 4 have been amended. Verb "measure" was replaced by other expression so that no confusion arises.

ABOUT AMENDMENT IN CLAIM 3

In second wherein clause in previous Claim 3, there written:

"when illuminating point comes between these two devices".

But, there was no description how illumination point was decided. Then, in amended Claim 3, means for calculation of illumination point is added and structure of claim composition was modified. The means for calculation is described in paragraph [0050]. And seventh means is described in paragraph [0051].

ABOUT NEWLY ADDED CLAIMS

4 claims are added relating modification of duration time data in memory.

In the specification, how to do this modification is described, but purpose or background may not be described enough. So, here is some additional explanation.

These modifications is not available in tape recording apparatus. Micro tempo change is often used for emphasizing tone by elongation one or few tones or for memorizing different way of transition of tempo. Macro tempo change is used for adjusting tempo of wide portion of music on the fly. Sometimes user's playing gradually deviates from tempo of the metronome. Of cause, user can correct his timing and tempo to much with the

metronome. But the system prepares means to adjust its own side. To do this, user tells the metronome by a footswitch his playing just comes to first beat of some bar, and the metronome makes adjustment both in timing and tempo. There is condition that deviation is less than half of one bar.

Newly added Claim 13 is sub-claim of Claim 2, which is apparatus claim, and described as “micro tempo change” in paragraph [0046] from third sentence in the specification.

Newly added Claim 14 is sub-claim of Claim 2, which is apparatus claim, and described as “macro tempo change” in paragraph [0047] from third sentence in the specification.

Newly added Claim 15 is sub-claim of Claim 5, which is computer program relating claim, and described as “micro tempo change” in paragraph [0046] from third sentence in the specification.

Newly added Claim 16 is sub-claim of Claim 5, which is computer program relating claim, and described as “macro tempo change” in paragraph [0047] from third sentence in the specification.

Allowable Subject Matter

ITEM No. 6.

It is thought that confusion in Claim1 and Claim 4 is resolved by removing the word “measure”. Claimed system is not complicated one, but simply reproduces beat timings, which are input by tapping. But, as whole system, it is thought as a new concept machine, which gives users new practice or production method.

CONCLUSION

Claims are amended to use clear terms. Claims are newly added.

Further examination is appreciated.

Sincerely,



Seiji Kashioka